

NOVEMBER/DECEMBER 2025

**23UFBT14 — BASICS OF
BIOTECHNOLOGY**



Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is the contribution of Louis Pasteur?
2. Define: Bioremediation.
3. What is the chimeric DNA?
4. What is the key function of ligase?
5. Write any two applications of blue biotechnology.
6. What is black biotechnology?
7. List out the names of two bakery products that come from biotechnological processes.
8. How is laundry detergent a product of biotechnology?

9. What is gene therapy?
10. List out the two applications of medical biotechnology.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Give an account of advantages of biotechnology.

Or

- (b) Identify the scope of biotechnology.

12. (a) Explain the different vectors that are used in rDNA technology.

Or

- (b) Summarize types of restriction endonucleases.

13. (a) Describe the applications of green biotechnology.

Or

- (b) How can grey biotechnology be used to solve the pollution problems?

14. (a) Describe the role of biotechnology in the production of antibiotics.

Or

- (b) Discuss on biofuels.

15. (a) Explain the products produced through biotechnology in our daily life.

Or

- (b) Outline benefits of herbal biotechnology.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the scope and applications the history of biotechnology.
17. Elucidate the steps involved in transfer of recombinant DNA into the host.
18. What is white biotechnology? Explain how white biotechnological products help to maintain human health.
19. Explain the production of different dairy products.
20. Elaborate on the importance of medical and plant biotechnology and its applications.

